Early Actions Related to Habitat and Stewardship

Category	Program/Action Name	Description	Short-Term Action Needed	Funding Status
HABITAT ACQUISITION AND RESTORATION				
Habitat Projects: WRIA 7	Middle Fork Snoqualmie Waterways 2000 Acquisitions	The Mid Fork Snoqualmie Waterways 2000 Basin Team will identify habitat acquisition using the enhanced Waterways 2000 ESA early action project criteria, to complete the Middle Fork Snoqualmie Waterways 2000 project, identified in the Waterways 2000 program.	Purchase of Key Parcels in 1999.	F
Habitat Projects: WRIA 7	Snoqualmie Floodplain	Acquire high quality off-channel habitat in floodplain.	Purchase of key parcels	F
Habitat Projects: WRIA 7	Snoqualmie Off-Channel	Reconnect off-channel habitat with the main channel	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Rock Creek Enhancement	Correct bank erosion problems on stream with high habitat value.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Taylor Creek habitat enhancement and flood reduction	Fisheries habitat enhancement on tributary to Cedar River. Move Taylor Creek from roadside ditch to natural stream channel. Re-construct habitat.	Construction of CIP in 2000.	F
Habitat Projects: WRIA 8	Harris Creek Culvert Replacement	Located along Stossel Creek Way, off Kelly Road. Removal and replacement of up to eight culverts and habitat restoration, in coordination with State F&W.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Carey Creek Fish Passage	Restoration on high quality tributary of Issaquah Creek.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Tiger Mountain Road	Restoration on high quality tributary of Issaquah Creek.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Issaquah-Fall City Road	Restoration on high quality tributary of Issaquah Creek.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Rock Creek culverts	Extension of existing roads habitat improvement project to protect streambank--provide larger culvert	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Cedar River Habitat Acquisition	The Cedar River Council will review it's priority habitat acquisition list process to and identify critical salmon habitat meeting the enhanced Waterways 2000 ESA early action project criteria for the Cedar River main stem Belmondo and Dorre Don reaches, Wetland 69/Landsburg Oxbow, Rock Creek, Cedar Mountain Bridge, Wetland 79, or Lower Peterson Creek or other critical priority habitat.	Purchase of Key Parcels in 1999.	F
Habitat Projects: WRIA 8	Floodplain Buyouts	The county has matched more than $1 million from FEMA in the past two years to buy out and remove frequently flooded homes and other structures in the floodplain of the Cedar River. The county has restored riparian areas to improve fish habitat.	Purchase of Key Parcels in 1999.	F
Habitat Projects: WRIA 8	Passage Improvements for Juvenile Salmonids at Ballard Locks	Local governments in the WRIA and the Muckleshoot Indian Tribe are sponsoring a set of improvements at the Ballard Locks that the Corps of Engineers will begin constructing in November 1999. The improvements are projected to improve the survival of salmon smolts leaving the Lake Washington system by 20% by providing safe passage than the smolts now experience frequently as they are pulled into the filling system for the Locks	Construction of CIP in 1999.	F
Habitat Projects: WRIA 8	Madsen Creek restoration project	Stream restoration and sewer pipe stabilization project designed to enhance habitat value for salmonids and minimize impacts from construction (e.g. use of helicopters and hand tools rather than new access road and heavy equipment.)	Construction of CIP in 1999.	F

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Habitat Projects: WRIA 8	Madsen Creek tighten and main stem channel improvement	Restore surface water flows to stream to pre-development levels to control erosion that degrades habitat values in main stem.	Construction of CIP	F
Habitat Projects: WRIA 8	Issaquah Creek Waterways 2000 Acquisitions	The Issaquah Creek Waterways 2000 Basin Team will identify critical salmon habitat meeting the enhanced Waterways 2000 ESA early action project criteria, within the Carey Creek reach.	Purchase of Key Parcels in 1999.	F
Habitat Projects: WRIA 8	Sammamish River habitat restoration project	Project will be designed to provide improved salmon habitat in Sammamish River. The project would deepen the major pool in this part of the river, and will draw cooler groundwater to provide a much more favorable holding environment.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 9	Dumas Bay Eelgrass Restoration	Enhance and reestablish eelgrass beds to create and expand scarce estuarine habitat.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 9	Middle Green River Acquisitions	The Middle Green Basin Waterways 2000 Team will identify critical salmon habitat meeting the enhanced Waterways 2000 ESA early action project criteria, within the Middle Green Basin Waterways 2000 reach.	Purchase of Key Parcels in 1999.	F
Habitat Projects: WRIA 9	Lower Newaukum Creek	Located at 212th Way SE, approximately 300 feet south of 368th Street. Use of large woody debris or boulders to reduce the large amount of sediment within the stream's channel.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 9	O'Grady Park-Habitat Restoration	Placement of large woody debris in 3600 lineal feet of stream. Designed to increase cover for juvenile and adult salmonids and improve instream habitat conditions. Restore1200' of stream channel within O'Grady Park. Restore access to 1.3 miles of habitat by constructing log and rock fishway. Place LWD throughout stream and replant riparian buffer.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 9	Elliott Bay/Duwamish habitat restoration program	Ongoing program to prioritize and implement sediment remediation and habitat restoration projects in the bay and river. Currently underway: Norfolk sediment remediation project and West Seattle habitat restoration project.	Construction of CIP	F
Habitat Projects: WRIA 9	Duwamish-Hamm Creek Restoration Project	Restoration of approx. 7 acres of stream and intertidal wetland habitat, replacing existing piped and channeled section with meandering channel revegetated with native trees and shrubs.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 9	Des Moines Creek Improvement Plan	Series of improvements including construction of regional stormwater retention/detention facility, low flow augmentation, and stream habitat enhancements for restoration of natural stream qualities and fish habitat.	Construction of CIP	F
Habitat Projects: WRIA 9	O'Grady Culvert Improvement	Removal of a fish migration barrier in tributary to Green River. Identified as high priority for replacement under Waterways 2000 site management plan. This stream is known habitat for chinook, coho, steelhead and resident trout.	Construction of CIP in 1999.	F
Habitat Projects: WRIA 9	Mill Creek Restoration (Green River Valley)	Wetland acquisition project will improve hydrograph, water quality and habitat values in Mill Creek watershed. Wetland and stream restoration, including construction of two-stage channel with a meandering low flow channel and wider flood overflow channel within riparian wetland complex, addition of large woody debris and other enhancements.	Construction of CIP in 1999.	F
Habitat Projects: Multiple WRIAs	ESA Project Mitigation	General purpose mitigation fund for habitat impacts.	Construction of CIP in 1999.	F
Habitat Projects: Multiple WRIAs	Fish Passage Impediment Removal	Fund to remedy passage barriers.	Construction of CIP in 1999.	F

Funding: F = Funded N = Not Funded

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Habitat Projects: Multiple WRIAs	Contingency Matching Grant Fund	To provide matching funds for other sources for use with a wide variety of restoration projects.	Construction of CIP in 1999.	F
Habitat Projects: Multiple WRIAs	Drainage and habitat improvement program	Addresses localized erosion, flooding and small habitat problems in natural stream system, using bioengineering technology for streambank stabilization, removing fish barriers and installing large woody debris and boulders in streams to enhance habitat.	Construction of CIP in 1999.	F
RESEARCH AND STUDIES				
Research: WRIA 7	Habitat Assessment along the main-stem Snoqualmie River	Assessment of habitat conditions along the mainstem Snoqualmie from Snoqualmie Falls to the King/Snohomish County Line. King County has funded and is hiring a Senior Ecologist and Ecological Technician to initiate this field assessment. This work will be coordinated with an update of the King County Flood Hazard Reduction Plan.	Conduct study.	F
Research: WRIA 7	Sediment Deposition	Coordinate King County's ongoing efforts to monitor sediment deposition and/or erosion with more detailed studies of the impacts of scour on chinook redds being proposed by the Technical Committee	Conduct study.	F
Research: WRIA 7	Smolt Trapping	Trap salmon smolt to evaluate juvenile production and survival.	Fund and conduct study.	N
Research: WRIA 7	Enumeration of Juvenile Outmigraion	Obtain estimates of juvenile production in the basin	Fund and conduct study.	N
Research: WRIA 7	Snoqualmie Habitat Inventory	Identify the most promising floodplain areas for protection and restoration in the Snoqualmie Basin.	Fund and conduct study.	N
Research: WRIA 7	Fine Sediment Intrusion/Scour Study	Monitor scour and fine sediment intrusion to test for influence on egg to fry survival	Fund and conduct study.	N
Research: WRIA 7	Snoqualmie Levee Setback	Study the feasibility and design options for a levee setback or removal on the lower Tolt River	Fund and conduct study.	N
Research: WRIA 8	Ecosystem Restoration Studies	The US Army Corps of Engineers is partnering with King County, Seattle, Bellevue, Issaquah and others in WRIA 8 to study potential habitat improvements in the Ship Canal and Cedar and Sammamish Rivers, beach spawning opportunities in Lake Washington and Sammamish, and the potential effects on spawning behavior caused by the annual lowering Lake Washington for flood control in the fall.	Conduct study.	F
Research: WRIA 8	Lake Washington Ecological Studies	Studies on fish mortality at the Ballard Locks, the planktonic food supply of Lake Washington, and an array of potential predators of the sockeye. Though these studies have focused on sockeye they have resulted in increased understanding of other species, including a greater appreciation of the lakeshore environment for juvenile Chinook.	Complete and publish studies in early 2000.	F
Research: WRIA 8	Lake Washington chinook studies	In cooperation with Corps of Engineers, State resource agencies and UW, conducting studies to provide better information on status of chinook populations and habitat in the Cedar/Lake Washington basin.	Conduct study in 1998-2000.	F
Research: WRIA 9	Water Quality Assessment--Green River	Develop a water quality model of the Green River and its tributaries to assess the risk to aquatic life, wildlife, and people under existing conditions, various growth assumptions, and pollution abatement strategies.	Conduct study.	N

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PUBLIC OUTREACH AND STEWARDSHIP				
Public Outreach and Stewardship	Water Quality Advertising Campaign	A multi-jurisdictional ad campaign to educate the general public about their connection to water quality and encourage personal behavior changes that will improve water quality (e.g. fix oil leaks, scoop pet waste, reduce use of fertilizers/ pesticides). Uses high-profile TV, radio, and print ads to reach over a million citizens.	Ongoing.	F
Public Outreach and Stewardship	Natural Lawn Campaign	A multi-jurisdictional advertising and public outreach campaign to educate the general public about the impact typical lawn care has on water quality and water supplies and encourage personal behavior changes that will improve water quality and conserve water (e.g. use mulching mower, water lawns only once per week, reduce use of chemicals or use organic fertilizers). Uses high-profile TV, radio, and print ads, media events, and local community events.	Ongoing.	F
Public Outreach and Stewardship	School education programs	Educators visit classrooms to teach K-12 students about their personal connection to water quality, household hazardous waste, and resource conservation. Information is provided about personal behavior changes students and their families can take to help protect water quality and conserve water and other resources.	Ongoing.	F
Public Outreach and Stewardship	Educational workshops, tours, etc.	Workshops, field trips, tours and other opportunities are provided for citizens to learn about their connection to water resources and ways they can help protect water quality and salmon in a hands-on setting. One example is the Cedar River Salmon Journey, in which citizens visit sites along the Cedar River to watch spawning salmon and hear presentations from volunteer naturalists on salmon ecology and how they can help protect salmon.	Ongoing.	F
Public Outreach and Stewardship	Newsletters, brochures, and publications	Newsletters with educational information about peoples' connection to water resources and how they can help protect water quality and salmon are distributed to targeted audiences. Newsletters include Downstream News (volunteer programs and water quality), County Tracks (Parks interpretive programs/ wildlife information), Farm and Forest (water quality best management practices for agricultural and forest lands). Brochures, fact sheets, and other publications provide focused educational messages about water resources and personal behavior changes people can make to help protect salmon. Brochures include reprints of "Living with Salmon in King County" and "Home Tips for Clean Streams."	Ongoing.	F
Public Outreach and Stewardship	Riparian planting events	Volunteers participate in hands-on activities to replant native vegetation in degraded riparian, wetland, estuarine or other critical habitat areas. Volunteers learn about the importance of riparian areas, native vegetation, and other habitat features. Nearly 15,000 plants were planted by over 1,500 volunteers in 1998.	Ongoing.	F
Public Outreach and Stewardship	Native plant salvage program	Volunteers salvage native trees and shrubs from construction sites and maintain salvaged vegetation until it is replanted in salmon habitat restoration projects. Volunteers learn the importance of native vegetation to riparian areas.	Ongoing.	F
Public Outreach and Stewardship	Habitat Partners Program	Volunteers maintain new salmon habitat restoration sites. Activities include weeding, watering, replanting, monitoring, and other enhancement activities.	Ongoing.	F